

## HUBBELL, ROTH & CLARK, INC

Consulting Engineers

Principals George E. Hubbell Thomas E. Biehl Walter H. Alix Peter T. Roth Michael D. Waring Keith D. McCormack Nancy M.D. Faught

Senior Associates Gary J. Tressel Lawrence R. Ancypa Kenneth A. Melchior Randal L. Ford David P. Wilcox Timothy H. Sullivan Associates
Jonathan E. Booth
Michael C. MacDonald
Marvin A. Olane
William R. Davis
Daniel W. Mitchell
Jesse B. VanDeCreek
Robert F. DeFrain
Marshall J. Grazioli
Thomas D. LaCross
Dennis J. Benoit
James F. Burton
Jane M. Graham

February 21, 2012

## **Discussion of Water Rate Impacts**

On February 17, 2012 the Detroit Free Press ran an article entitled "Brace for Water Rate Boost". In this article, Grosse Pointe Shores was shown with a 28.9% increase. This information posted in the article is misleading and is discussed in the following paragraphs.

At the January 5, 2012 Council work session, HRC reported that the anticipated revenue requirement would likely increase 10% due to across the board system increases and another 10% due to the increase in GPS Peak Hour flows. The actual increase was 19.1%. HRC projected the GPS revenue requirement to go from \$398,208 to \$478,058. According to DWSD, GPS's proposed revenue requirement for FY 2012-2013 is \$474,255. If GPS internally uses the same volume to forecast retail rates as last year, the rate increase on the DWSD portion of the rate needed to cover DWSD costs would only need to be increased 19.1%. Additional information is shown below as found on the attached rate calculation sheets:

	FY 2011 – 2012	FY 2012 - 2013	Percent Change
Revenue Requirement	\$398,208	\$474,255	19.1%
Fixed Monthly Payment	\$10,535	\$16,962	61.0%
Rate per MCF	\$12.08	\$13.54	12.1%
Anticipated Volume (MCF)	22,500	20,000	-11.1%

The percent change of the fixed monthly payment is consistent with DWSD changing from 25% fixed costs to 40% fixed cost, or a 60% increase in that item, as discussed in the two Council meetings.

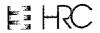
The percent change shown in the Free Press article is the difference between the proposed revenue requirement for next fiscal year (FY 2012-2013) and what the revenue collected from the City would have been under the current rate year (FY 2011-2012) but with the lower volume. This is not actual volume but this coming year's (FY 2012-2013) negotiated lower volumes. DWSD does not use the proposed revenue requirements from last year which the rates were based on. Thus, a direct comparison is not made. This is especially problematic if a community is going down in volume as the City is.

GPS revenue requirements for last year (FY 2011-2012) were based on a volume of 22,500 MCF (1 MCF = 1,000 cubic feet). Upon actual system performance, the volume was renegotiated lower to 20,000 MCF or an 11% reduction for the next three years. DWSD reruns the current revenue requirement model with the new volume, which shows the revenue collected by DWSD to be approximately \$30,000 less than projected or \$368,020, and then compares that to the new revenue requirement of \$474,255 showing the 28.9% change. This over exaggerates the so called rate increase.

To compare year to year costs, you have to convert back to a common unit or \$/MCF which is essentially what DWSD did. However, they used the lower of the two volumes instead of keeping last year's volume as used to calculate last year's rate. Below is a comparison of how this affected other customers:

A'H16 Projdoes' 201106: 20110603 Design: Corrs: 20120212Update\_NRS docx

Discussion of Water Rate Impacts February 21, 2012 HRC Job Number 20110603 Page 2 of 2



	As Reported					Actual Change in Revenue Requirement					
Community	Res	Under Exist		op. Rev Req	% Variance	201	I-12 Rev Req	2012	2-13 Rev Req º	% Variance	
Canton	\$	9,463,771	\$	10,249,942	8.31%	\$	9,463,502	\$	10,249,942	8.31%	
Sterling Heights	\$	11,985,372	\$	13,058,896	8,96%	\$	11,819,573	\$	13,058,896	10.49%	
Utica	S	417,876	-	452,137	8.20%	\$	417,856	S	452,137	8.20%	
Wixom	S	1,854,720	s	2,001,400	7.91%	\$	1,801,083	\$	2,001,400	11.12%	
Keego Harbor	S	213,584	\$	229,318	7.37%	\$	213,622	\$	229,318	7.35%	
Plymouth Twp	s \$	4,713,520	\$	3,572,213	-24.21%	S	4,070,420	\$	3,572,213	-12.24%	
Rochester Hills	s	9,879,796	\$	10,676,229	8.06%	\$	9,879,048	\$	10,676,229	8.07%	
	3 \$	18,173,772	S	19,792,309	8.91%	\$	18,169,060	\$	19,792,309	8.93%	
SOCWA		368,020	\$	474.255	28.87%	\$	398,208	S	474,255	19.10%	
GPS	\$	- /	\$ \$	227,503	-3.12%	\$	234,765	S	227,503	-3.09%	
Romeo	\$	234,818	4	180,474	16.55%	\$	165,398	s	180,474	9.11%	
Sylvan Lake	S	154,842	\$	100,474	[0.55]	Ψ	10000	~	- ,		

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

## FY 2011-12 PRELIMINARY RATE CALCULATION

## COMMUNITY: Grosse Pt. Shores

						Contract of the Contract of th	
	Cet Dmds	Units of	Applied		Allocated	Cost R	lecovery
Service Category	or Proxies	Service	<u>Units</u>	Unit Cost	Costs	Fixed (c)	Commodity
	mgd	Mcf/day	Mcf/day ~				
Commodity	(a)	61.6	66.0	\$201.54	\$13,301	\$0	\$13,301
Max Day Usage	1.4	191.2	195.6	895.75	175,177	84,679	90,498
Peak Hour Usage	2.3	312.8	317.2	0.00	0	0	0
Peak Hour Increment			121.6	264.06	32,123	0	32,123
Commodity Distance	18.9 m	iles	1,247.4	0.00	0	0	0
Max Day Distance		(2)*(5)	3,696.1	0.00	0	0	0
Peak Hour Use Distanc	ce	(3)*(5)	5,995.3	8.24	49,425	31,333	18,092
Peak Hour Incr Distanc	ce	(4)*(5)	2,299.2	0.00	0	0	0
Commodity Distance-E	El 18.9 <i>m</i> .	iles (b)	1,247.4	11.57	14,429	0	14,429
Max Day Distance-Elev	vation	(2)*(9)	3,696.1	1.41	5,204	0	5,204
Peak Hour Use Distanc	e-Elevation	(3)*(9)	5,995.3	12.74	76,386	0	76,386
Peak Hour Incr Distance	e-Elevation	(4)*(9)	2,299.2	9.46	21,760	0	21,760
Customer B (Meters)		283 e	q 5/8" mtrs	24.80	7,018	7,018	0
Wholesale Customer Su	upport		66.0	51.29	3,385	3,385	0
Total FY 2012 Revenue	Requirement				\$398,208	S126,415	\$271,793
FY 2012 Billing Units				- 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	22,500	12	22,500
	_				_		

FY 2012 Rate Schedule (16)/(17)

Fixed Monthly Charge & Commodity Rate - \$/Mcf

\$17.70

\$10,535

\$12.08

<sup>(</sup>c) 70% of the <u>Capital</u> portion of "Plant" and "Pipe" categories plus all of "Other" categories.

		Unit C	Costs - \$/Mcf Wa	ter Sales		Cost Recovery			
TOTAL	Comm'd	Max Day	PH Use	PH Incr	TOTAL	Fixed	Commodity		
Regular (Lines 1-4)	0.59	7.79	-	1.43	9.80	3.76	6.04		
Distance (Lines 5-8)	-	-	2,20	-	2.20	1.39	0.80		
Dist/Elev (Lines 9-12)	0.64	0.23	3.39	0.97	5.23		5.23		
Other (Lines 13-14)	0.46				0.46	0.46	-		
TOTAL	1.69	8.02	5.59	2.39	17.70	5.62	12.08		
Treatment	0.59	7.79			8.38	3.76	6.04		
Pipes / Meters	0.46	-	2.20	-	2.66	1.85	0.80		
Storage / Pumping	0.64	0.23	3.39	2.39	6.66	-	5.23		

<sup>(</sup>a) Units of Service = annual volume on Line 16/365 days. Applied Units include allocated Non-Revenue (unaccounted for) Water @ 7.1% of sales based on distance factor.

<sup>(</sup>b) Elevation Factor = 587 - 610 = 0 feet 10.56 = 0.0 miles + 18.9 miles = 18.9 miles.

	FY 20	12-13 PRO	POSED RA	TE CALC	ULATION		
COMMUNITY	Grosse Pt. S	haras					
COMMUNITY:	Grosse Ft. S	Buores	C	D	2	ľ	G
	C + D - I	Units of	Applied	A STATE OF THE STA	Allocated	Cost R	ecovery
	Cct Dmds		Units_	Unit Cost	Costs	Fixed (c)	Commodity
Service Category	or Proxies mgd	<u>Service</u> <i>Mcf/day</i>	Mcf'day ~	Om Cost	<u></u>	<del>- 1</del>	
Commodity	(a)	54.8	58.9	\$214.33	\$12,624	\$0	\$12,624
Max Day Usage	1.4	191.2	195.3	997.27	194,730	135,607	59,123
Peak Hour Usage	2.7	364.9	369.0	0.00	0	0	0
Peak Hour Increment			173.8	269.05	46,756	0	46,756
Commodity Distance	18.9 n	1iles	1,113.2	0.00	0	0	0
Max Day Distance		(2)*(5)	3,690.5	0.00	0	0	0
Peak Hour Use Distance	e	(3)*(5)	6,975.0	9.51	66,360	60,306	6,054
Peak Hour Incr Distance		(4)*(5)	3,284.5	0.00	0	0	0
Commodity Distance-E		niles (b)	1,113.2	11.78	13,115	0	13,115
Max Day Distance-Ele		(2)*(9)	3,690.5	1.52	5,617	0	5,617
Peak Hour Use Distance	(3)*(9)	6,975.0	13.61	94,958	0	94,958	
	(4)*(9)	3,284.5	9.88	32,461	0	32,461	
			eq 5/8" mtrs	16.89	4,779	4,779	(
Wholesale Customer S	205	58.9	48.47	2,835	2,855	(	
wholesale Custollier 3	иррогі		•			2222.715	\$270,70
Total FY 2013 Revenue	e Requirement				\$474,255	S203,547	3270,70
FY 2013 Billing Units					20,000	12	20,000
	/1.2: //II	ixed Monthly Cha	was & Commodit	Rate - S. Mcf	\$23.71	\$16,962	\$13.5
FY 2013 Rate Schedule			<b>第二次的第三人称单数</b>				
(a) Units of Service =	annual volume	on Line 16 / 36.	5 days. Applied	Units include a	llocated Non-Re	venue	
(unaccounted for) V	Vater @ 7.5% o	f sales based on	distance factor.				
(b) Elevation Factor =	= 587 - 610 = 0	feet : 10.56 = 0.	0 miles + 18.9 r	niles = 18.9 mil	es.		
(c) 100% of the Capita	l portion of "Pl	ant" and "Pipe"	categories plus	all of "Other" c	ategories.	i de l'ora de la compania de la comp	
	Unit Costs - \$/Mcf Water Sales						Recovery
TOTAL	Comm'd	Max Day	PH Use	PH Incr	TOTAL	Fixed	Commodity
Regular (Lines 1-4)	0.63	9.74	•	2.34	12.71	6.78	5.93
Distance (Lines 5-8)	-	-	3.32	-	3.32	3.02	0.30
Dist/Elev (Lines 9-12)	0.66	0.28	4.75	1.62	7.31	0.20	7.31
Other <i>(Lines 13-14)</i>	0.38			2.07	0.38	0.38 10.18	13.54
TOTAL	1.67	10.02	8.07	3.96	23.71		5.93
Treatment	0.63	9.74	2.22		10.37	6.78 3.40	0.30
Pipes / Meters	0.38 0.66	0.28	3.32 4.75	3.96	3.70 9.65	-	7.31
Storage / Pumping	0 4 4	11.78	1 4 / 3	1 771.1	· /.UJ		